

FULL TEXT OF CASES (USPQ2D)

All Other Cases

(Unpublished) Ex parte Gavin, 62 USPQ2d 1680 (BdPatApp&Int 2001)

62 USPQ2D 1680

Ex parte Gavin

**U.S. Patent and Trademark Office, Board of Patent Appeals and
Interferences**

Appeal No. 2001-1647

Decided December 17, 2001

(Non-precedential)

Headnotes

PATENTS

**[1] Practice and procedure in Patent and Trademark Office — Prosecution — Rules and
rules practice (§110.0905)**

Patentability/Validity — Anticipation — Prior art (§115.0703)

Examiner's finding that claims in patent application for "composite particles" containing

shell and core are anticipated by prior art is vacated, since examiner relied upon abstracts of two published Japanese patent applications without referring to translations of underlying applications, since, in rejection, abstract does not incorporate by reference any disclosure of underlying document, and since abstracts in present case do not expressly describe or teach particles having zinc oxide core with zinc pyrithione shell claimed in application at issue, or provide sufficient information to permit inference that zinc oxide core/zinc pyrithione shell structure is inherent or necessary result of disclosure of either reference; citation of abstract without citation and reliance on underlying scientific document is generally inappropriate if both abstract and underlying document are prior art, and Board of Patent Appeals and Interferences will not obtain translations of underlying Japanese applications, finding that to be responsibility of examiner.

[2] Patentability/Validity — Anticipation — Prior art (\$115.0703)

Claims in patent application for “composite particles” containing shell and core, which can be used in antifouling composition, coating compositions and in shampoo, soap, or skin care medicament, were properly rejected by examiner as anticipated by prior art reference, since examiner had legally sufficient, sound basis for finding that claimed composites and zinc pyrithione surface coated zinc oxide of prior reference are *prima facie* identical or substantially identical, and since, apart from fact that applicants do not claim particle size, there is no reason to believe that applicants' particle size of 1 to 20 microns results in biocidal properties that are patentably distinct from those described in prior art reference.

Case History and Disposition

Appeal from rejection of patent application.

Patent application no. 09/120,664,1 filed by David F. Gavin, Graig Waldron, Robert J. Martin, and George A. Polson, claiming “composite particles” containing shell and core, which can be used in antifouling composition, coating compositions and in shampoo, soap, or skin care medicament. Applicants appeal from decision of primary examiner rejecting claims 1, 38 and 40-41. Affirmed.

[Editor's Note: The Board of Patent Appeals and Interferences has indicated that this opinion is not binding precedent of the board.]

Judge:

Before William F. Smith, administrative patent judge, McKelvey, senior administrative patent judge, and Nagumo, administrative patent judge.

Footnotes

1 Application for patent filed 22 July 1998. The real party in interest is Arch Chemicals, Inc. (Appeal Brief, page 2).

Opinion Text

Opinion By:
McKelvey, S.J.

***Decision on appeal under
35 U.S.C. § 134***

The appeal is from a decision of a primary examiner rejecting claims 1, 38 and 40-41. We affirm.

A. Findings of fact

The record supports the following findings by at least a preponderance of the evidence.²

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The invention

1. The invention relates to “composite particles” (specification, page 5, lines 2-3).
2. According to the specification, the composite particles contain a shell and a core (specification, page 5, line 4).
3. The core comprises a metal or a metal-containing compound (specification, page 5, lines 4-6), an example being zinc oxide (specification, page 20, Example 20).
4. In the words of the specification (page 5, lines 6-8):

[the] shell * * * [comprises] a pyrithione adduct comprising the reaction product of pyrithione with a portion of * * * [the] metal or metal-containing compound from * * * [the] core.
5. The shell component is said to provide complimentary biocidal activity to the biocidal activity of the core component (specification, page 5, lines 8-10).

6. The composite particles are said to be useful in biocidal compositions (specification, page 5, line 2).
7. The composite particles can be used in an antifouling composition (specification, page 5, line 27), coating compositions (specification, page 6, lines 11-14) and in a shampoo, soap or skin care medicament (specification, page 6, lines 1-2).

The claims

8. Claims 1 and 38 are independent claims. Claim 40 depends from claim 1. Claim 41 depends from claim 38.
9. Independent claim 1 reads:

A biocidal composition comprising composite particles, each of said composite particles containing a shell and a core, said core comprising a metal or a metal-containing compound wherein the metal is a
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moiety selected from the group consisting of zinc, copper, bismuth, silver, zirconium, and combinations thereof, and said shell comprising a pyrithione adduct comprising the reaction product of pyrithione with a portion of said core metal or metal compound.

10. Dependent claim 40 reads:

The composition of claim 1 wherein said shell comprises zinc pyrithione, and said core comprises zinc or a zinc-containing compound selected from zinc oxide and zinc selenide.

11. Dependent claim 40, re-written in independent form reads (indentation and bracketed matter added):

A biocidal composition comprising composite particles,

[1] each of said composite particles containing a shell and a core,

[2] said core comprising zinc or zinc oxide or zinc selenide and

[3] said shell comprising zinc pyrithione adduct comprising the reaction product of pyrithione with a portion of said core zinc oxide or zinc selenide.

12. Independent claim 38 reads:

A biocidal composition comprising composite particles containing a shell and a core, said core comprising a filler or a biocide and said shell comprising a pyrithione adduct derived from a portion of the core metal.

13. Dependent claim 41 reads:

The composition of claim 38 wherein said shell comprises zinc pyrithione, and said core comprises zinc or a zinc-containing compound selected from zinc oxide and zinc selenide.

14. Dependent claim 41, re-written in independent form reads (indentation and bracketed matter added):

A biocidal composition comprising composite particles containing a shell and a core,

[1] said core comprising a filler or a biocide comprising zinc or a zinc-containing compound selected from zinc oxide and zinc selenide

[2] and said shell comprising a pyrithione adduct derived from a portion of the core metal.

The examiner's rejections

15. *Rejection 1:* All claims were rejected under 35 U.S.C. § 102(b) as being anticipated by Bernstein, U.S. Patent 2,809,971 (1957) (Examiner's Answer, pages 4 and 7).

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16. *Rejection 2:* All claims were rejected under 35 U.S.C. § 102(e) as being anticipated by Oppong, U.S. Patent 5,776,960 (1998, filed 16 October 1996), when considered in light of Bernstein which is said to have been incorporated by reference into Oppong (Examiner's Answer, pages 4 and 10).

17. *Rejection 3:* All claims were rejected under 35 U.S.C. § 102(e) as being anticipated by Roenigk, U.S. Patent 5,821,271 (1998, filed 7 June 1996) (Examiner's Answer, pages 5 and 13).

18. *Rejection 4:* All claims were rejected under 35 U.S.C. § 102(b) as being anticipated by an "abstract" of "Nagata." Nagata is published Japanese Patent Application 04-311206 (1992) (Examiner's Answer, pages 5 and 15). A translation of the Japanese application has not been provided.

19. *Rejection 5*: All claims were rejected under 35 U.S.C. § 102(b) as being anticipated by an “abstract” of “Fujita” (Examiner’s Answer, pages 5 and 17). Fujita is published Japanese Patent Application 05-297198 (1993). A translation of the Fujita Japanese application has not been provided.

20. *Rejection 6*: All claims were rejected under 35 U.S.C. § 102(e) as being “clearly anticipated” by Morris, U.S. Patent 5,916,947 (1999, filed 18 September 1996) (Examiner’s Answer, pages 6 and 18).

Morris

21. Because we reverse the rejections based on Bernstein, Oppong and Roenigk, and because we vacate the rejections based on Nagata and Fujita, all for reasons hereinafter given, we do not find it necessary to discuss the scope and content of these five documents.

22. Applicants represent that Morris describes “a photosensitizer being ‘surface coated’ onto zinc oxide” (Appeal Brief, page 9).

23. Applicants further represent that “[w]ithin * * * [Morris] wish-list of photosensitizers is zinc pyrithione” (Appeal Brief, page 9).

24. Morris will confirm applicants’ representations, although we are not quite sure what applicants mean by “wish-list.”

25. Morris describes an antifouling coating composition which comprises zinc oxide which has been surface coated by a photosensitizer (page 1, Abstract).

26. In claim 1, Morris describes a “material” which is said to have antifouling activity comprising zinc oxide and a photosensitizer wherein the “photosensitizer is surface coated onto * * * [the] zinc oxide and is selected from the group consisting of * * * zinc pyrithione * * *.”

27. In claim 15, as part of an overall method of preventing unwanted organic growth, Morris claims a process step of surface coating zinc oxide with a photosensitizer.

28. In the descriptive portion of the patent, Morris tells us that the “material” can be made through a “preformulation step * * * which involves either subliming or solvent depositing the photosensitizer over the surfaces of the colloidal zinc oxide prior to suspending the zinc oxide pigment in * * * [a] vehicle” (col. 6, lines 10-14). The step is said to help ensure that the photosensitizer contacts the zinc oxide (col. 6, lines 14-15).

29. Morris describes the use of several photosensitizers, including zinc pyrithione (col. 6, lines 54 through col. 7, line 3, particularly col. 6, line 66).

30. In what appears to be an embodiment which may not involve surface coating, Morris describes the use of a mixture of zinc oxide and zinc pyrithione (col. 8, lines 25-32).

The examiner’s rationale

31. According to the examiner, Morris describes a biocidal particle composition “that comprises a zinc core (e.g. zinc oxide) and a zinc parathion [4] ‘shell’ * * *” (Examiner’s Answer, pages 6 and 18).

32. Further according to the examiner, the composition described by Morris “would inherently result” in the claimed product (Examiner’s Answer, pages 6 and 19). In other words, according to the examiner, the claimed invention is inherently, but not explicitly, described by Morris.

33. Still further according to the examiner, Morris describes a photosensitizer surface coated onto zinc oxide (Examiner's Answer, page 19).

34. The examiner found that the ingredients of applicants' claimed composites (zinc oxide

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core and zinc parathion [sic—pyrithione] shell) would appear to be the same.

35. Recognizing that the compositions described and claimed by Morris are "identical or substantially identical," the examiner held that a *prima facie* case of anticipation existed on the record (Examiner's Answer, page 21), citing *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977) ("[w]here, as here, the claimed and prior art products are identical or substantially identical, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product"); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990) (same).

Applicants' argument

36. Applicants' principal argument seems to be that Morris cannot anticipate the claims because the claims require that the "shell" be a reaction product of pyrithione with zinc from the zinc oxide in the "core" (Appeal Brief, page 9).

37. Applicants, through counsel and without referring to any underlying evidence, argue that the surface coating envisioned by Morris is different since it lacks the structural integrity of a shell formed by chemically bonding with a portion of the core material (Appeal Brief, page 9).

38. To be sure, there is a discussion in the specification with respect to a photomicrograph shown in Fig. 2 of the drawings (specification, pages 6 and 17).

39. According to that discussion, Fig. 2 is said to show the attachment of small copper pyrithione particles to the surface of larger cuprous oxide particles (page 17, lines 21-22).

40. Apart from the fact that in presenting the appeal applicants do not rely on Fig. 2, we are not sufficiently knowledgeable with respect to the metallurgy involved to tell, without the testimony of an expert or a person having ordinary skill in the art, what is shown in Fig. 2 or what is meant by the word "attachment" (specification, page 17, line 21). In this respect, applicants did not favor us with any Rule 132 declaration testimony of any witness.

41. Even if we assume that the representations in the specification are accurate with respect to copper pyrithione and cuprous oxide, there is no corresponding micrograph of a zinc pyrithione and zinc oxide composite. We are in no position to make findings to the effect that what occurs with copper will also occur with zinc.

B. Discussion

1. Rejections based on Bernstein, Oppong and Roenigk

These rejections are based on anticipation under 35 U.S.C. § 102. To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945-46 (Fed. Cir. 1999). The examiner has not remotely

made out a case that Bernstein, Oppong or Roenigk describe, explicitly or inherently, a composite having a core and a shell.

Accordingly, these rejections are *reversed*.

2. Rejections based on Nagata and Fujita

The Board of Patent Appeals and Interferences continues to have recurring problems in resolving *ex parte* appeals which come before it. One continuing recurring problem is the citation and reliance by examiners on abstracts, without citation and reliance on the underlying scientific document.

[1] In this appeal, the examiner relied upon abstracts of two published Japanese patent applications without referring to translations of the underlying applications. An abstract and the underlying document of which it is a summary are distinct documents. In a rejection, an abstract stands on its own—it does not incorporate by reference any disclosure of the underlying document. Abstracts are often not written by the author of the underlying document, and may be erroneous or misleading—in virtually all cases, they are incomplete. In the present case, neither the Fujita abstract nor the Nagata abstract expressly describe or teach a zinc oxide core having a zinc pyrithione shell. Nor, on the present record, do they provide enough information to permit an inference that zinc oxide core/zinc pyrithione shell structure is an inherent, i.e., a *necessary*, result of the disclosure of either reference. The examiner does not explain, either in the statement of rejection or rebuttal, where the required core-shell structure is said to be described, or why it must be formed as

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a result of the operations described in the references.

Generally an abstract does not provide enough information to permit an objective evaluation of the validity of what it describes. Thus, an abstract is even less reliable a basis to extrapolate the alleged teachings of the underlying document to different circumstances. Abstracts function to alert a reader to disclosures of possible interest. They are little more reliable than headlines or brief newspaper articles.

Citation of an abstract without citation and reliance on the underlying scientific document itself is generally inappropriate where both the abstract and the underlying document are prior art.5 It is our opinion that a proper examination under 37 CFR §1.104 should be based on the underlying documents and translations, where needed. Accordingly, the preferred practice is for the examiner to cite and rely on the underlying document.

When an examiner cites and relies only on an abstract, the applicant may wish to obtain a copy of the underlying document and submit a copy to the examiner when responding to a rejection relying on an abstract. In the event a reference is in a foreign language, if the applicant does not wish to expend resources to obtain a translation, the applicant may wish to request the examiner to supply a translation. If a translation is not supplied by the examiner, the applicant may wish to consider seeking supervisory relief by way of a petition (37 CFR § 1.181) to have the examiner directed to obtain and supply a translation. In the past, when neither the examiner nor the applicant rely on the underlying article, the board has often expended the resources necessary to obtain a copy of the underlying scientific article, as well as translations thereof. When it did so, however, the burden of examining the application fell on the board in the first instance. Moreover, to the extent that the board relies on parts of a translation not previously provided to an applicant, any affirmance generally has to be a new ground of rejection under 37 CFR §1.196(b)—which can result in further prosecution.

In this case, we do not know whether the examiner or the applicant had or reviewed the underlying foreign language Japanese applications or translations thereof. The board cannot examine, in the first instance, all applications which come before it in an *ex parte* appeal under 35 U.S.C. §134. In this particular appeal, we exercise discretion by declining to obtain translations of the underlying Japanese applications and thereafter evaluate on the merits in the first instance the translations. In our view, obtaining translations is the responsibility of the examiner. A review by the examiner and applicant of translations of the prior art relied upon in support of the examiner's rejection may supply additional relevant evidence on issues of anticipation and obviousness. Moreover, an evaluation of translations may eliminate the need for an appeal.

For the reasons given, we *vacate* the rejections based on Nagata and Fujita. Since we are affirming the rejection based on Morris, a remand is not believed necessary. However, in the event of further prosecution in this or a continuing application, should the examiner rely on Nagata and/or Fujita, and should there be a subsequent appeal, translations of the Japanese applications should be obtained and any rejection should be based on those translations, not the abstracts.

3. Rejection based on Morris

[2] In our view the examiner had a legally sufficient sound basis for finding that the claimed composites and the zinc pyrithione surface coated zinc oxide of Morris are *prima facie* identical or substantially identical within the meaning of *Best* and *Spada, supra*. The Morris "core" and "shell" appear to be made from the same "core" and "shell" materials mentioned in the claims on appeal. Moreover, according to Morris, surface coating the zinc oxide with zinc pyrithione "helps ensure that the * * * [zinc pyrithione] contacts the zinc oxide" (col. 6, lines 24-25). Applicants tell us in their specification, but not their Appeal Brief, and without really explaining in the specification the underlying technological basis therefore, that Fig. 2 shows the "attachment" of copper pyrithione particles to the surface of larger cuprous oxide particles" (specification, page 17, lines 21-22). Assuming, as we noted above, that the same kind of "attachment" would occur with zinc pyrithione and zinc oxide, the examiner had a reasonable basis to believe that the "attachment"

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mentioned by applicants is the same as the "contacts" mentioned by Morris.

We recognize that applicants believe that there is some reaction between the zinc of the zinc oxide core and the pyrithione used to form the shell. In effect, applicants include in the claims a process limitation in an attempt to define their product. We have no quarrel, in the abstract, with the use of process limitations to define a product. *In re Luck*, 476 F.2d 650, 653, 177 USPQ 523, 525 (CCPA 1973) (a product claim may include process steps to wholly or partially define the claimed product). However, a product defined in whole or in part by the method by which it is made is still a product. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985) (the patentability of a product does not depend on its method production—if the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process). Since we cannot tell on this record whether the method used by applicants to make their zinc composites results in a different product from that described by Morris with respect to zinc products, we believe the examiner had a legitimate basis for shifting the burden to applicants to show that Morris does not describe the claimed zinc composites.

We have not overlooked other discussion in applicants' specification. For example, according to applicants, at least the copper products "typically" have particle sizes in the range of 1 to 20 microns (specification,

page 9, lines 21-22). Morris tells us that "superior antifouling properties" are obtained when the particle size is 0.10 to 0.50 microns. However, Morris makes it clear that a 0.10 to 0.50 micron size is not essential (col. 4, line 65 through col. 5, line 5). Apart from the fact that applicants do not claim a particle size, we have no reason to believe, on this record, that applicants' particle size of 1 to 20 microns results in biocidal properties which are patentably distinct from those described by Morris.

C. Decision

Rejections 1-3 are *reversed*. Rejections 4-5 are *vacated*. Rejection 6, based on Morris, is *affirmed*. Since all claims stand rejected over Morris, the decision of the examiner rejecting claims 1, 38 and 40-41 is *affirmed*. A remand with respect to the vacated rejections is not necessary in view of the affirmance based on Morris.

D. Order

Upon consideration of the appeal, and solely for the reasons given, it is

ORDERED that the decision of the examiner rejecting claims 1, 38 and 40-41 is *affirmed*.

FURTHER ORDERED that no time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

Footnotes

2 To the extent these findings of fact discuss legal issues, they may be treated as conclusions of law.

3 We note that claim 38 is the broadest claim on appeal.

4 The examiner refers to zinc parathion. It is apparent from the record that the examiner meant to refer to zinc pyrithione. The two compounds are different. *See* entries 7167 and 8178 from *The Merck Index*, CD-ROM, Version 12:1a, ISSN 1359-2947 (12th ed. 1996). Copies of the entries are attached as an Appendix to our opinion. We have construed the examiner's reference to zinc parathion to mean zinc pyrithione.

5 In the circumstance where only the abstract is prior art, an examiner is nevertheless under a burden to establish that the content of the abstract, along with other prior art relied upon, is legally sufficient to support a rejection.

- End of Case -